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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,465

10/17/2006

Minoru Goto

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7055 7590 10/20/2008  
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EXAMINER

MICHALSKI, SEAN M

ART UNIT

PAPER NUMBER

3724

NOTIFICATION DATE

DELIVERY MODE

10/20/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,465	<b>Applicant(s)</b> GOTO, MINORU	
	<b>Examiner</b> SEAN M. MICHALSKI	<b>Art Unit</b> 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/29/2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1 lines 9 and 10, “rotating and driving” is not understood. The recitation should be something like, “driven rotationally”. Either the mechanism drives or it rotates, it is not understood what the parameters of something that must “drive “ and “rotate” are. Also, lines 19 and 20 recite “the brush is sandwiched... with respect to the band saw blade”, which is not understood. It appears that the blade is sandwiched by the two brushed. Clarification is needed.

Lines 6 and 7 which recite “a pair of brush support... that pivotally support a brush shaft” is unclear. It is believed that each support supports only one brush shaft. Clarification is needed. Line 7 states “a brush that can come into contact with both side surfaces of a blade tip”, which is not understood. It is believed that each brush only contacts one of the blade side surfaces.

In claim 5, “a universal joint” is not clear. There are two universal joints. This should be clarified, since otherwise the scope of the claim is indefinite. IN claim 6 “the universal joint” should also be changed to remove the indefiniteness, there actually being two universal joints.

### ***Claim Objections***

In claim 5, "rive bevel gears" should be "drive bevel gears".

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara (US 5,771,765) in view of Bennett (US 1,453,335).

Aihara discloses a chip removing device having a brush support body that pivotally supports a brush shaft having a brush which can come into contact with the side surfaces of the band saw blade, such that the brush is driven rotationally. (see column 6 lines 16-24). There being a rotating/driving mechanism provided (motor 47). There is a removing biasing unit which biases the bush support body (93 figure 7 or 71/75 figure 5) in a direction approaching or separating (see arrows in figure 7 at least) from the band saw blade, the brush and support body are provided such that they can rock in the direction approaching the band saw blade and a direction separating from the band saw blade (see pivot 85 figure 7). Aihara further discloses that the brush is sandwiched with substantially constant pressing force with respect to the blade (figures and column 2 lines 1-13, and 29 and 30). While the force is adjustable, based on the position, the adjustability is used by the controller to urge with constant pressing force, as opposed to constant position (also column 10 lines 60+ and column 11 lines 1-9).

Aihara further discloses a wear detector (111, 117 figure 9A/B) that detects a reduction in diameter of the brush caused by wear as a variation of the brush support body in a direction approaching the band saw blade.

Aihara further discloses that the wear detector comprises a pushing lever (111 figure 9A) a "shaft" to be detected that is engaged with the pushing lever (the circle between 111 and 117) a detecting biasing unit which always brings the the shaft into abutment against the pushing lever (115) and when 117 detects movement of the shaft (the circle) it is detecting the wear of the brush (19); as set forth in column 10 lines 35-45.

Aihara does not disclose using two brush support bodies, and two brushes, and two of everything.

Bennett discloses using two brushes each provided on a side of the band saw blade, to clean both sides of the band saw blade during use (16 figure 9).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to have two brushes with two brush support systems on either side of the band saw blade of Aihara, in order to provide a duplicated cleaning effect on the band saw blade, as taught by Bennet. Additionally, it has been held that the mere duplication of the essential working parts for a multiplied effect is obvious unless there is a synergistic effect. See *St. Regis Paper Co. v. Bemis CO., Inc.*, 193 USPQ 8, 11 (7<sup>th</sup> Cir. 1977).

Regarding claim 4, Alhara does not explicitly disclose that the rotation direction of the brush is from the root of the blade to the tip of the blade, or that the brush is inclined with respect to the band saw.

It would have been obvious to make the brush be inclined, and also rotate from root to tip of the blade teeth. It is common sense that there are only three options for the inclination, "inclined," "perpendicular" and "parallel". It would have been obvious to select inclined on the basis that there are only three options, It has been held that a motivation to try constitutes a motivation, unless it is shown that one of ordinary skill would have been unable to make the combination. See *KSR International Co. v Teleflex Inc. et al.* US Supreme Court, No. 04-1350, 550 U.S. \_\_\_\_\_ (2007), which states "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." Slip op. at 17. The same rationale applies to the question of which direction the brush should rotate; either it will rotate root to tip, or vice versa. It seems that the selection of root to tip is a simple selection, and given the fact that there were only two choices for which direction to have the brush rotate, the selection of one over the other is considered to be within the level of ordinary skill and it therefore not patentable.

#### ***Allowable Subject Matter***

5. Claims 5 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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6. The following is a statement of reasons for the indication of allowable subject matter: the closest prior art of record (Aihara) only discloses one spinning brush, so the specific features set forth in claim 5 regarding the interplay between the two brushes is more than a duplication of parts. There is no reason to use universal joints that connects the pair of second rotation drive shafts to the brush shafts, or to use a *pair* of drive bevel gears on a single drive shaft.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN M. MICHALSKI whose telephone number is (571)272-6752. The examiner can normally be reached on M-F 7:30AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sean M Michalski/

Examiner, Art Unit 3724

/Kenneth Peterson/

Primary Examiner, Art Unit 3724